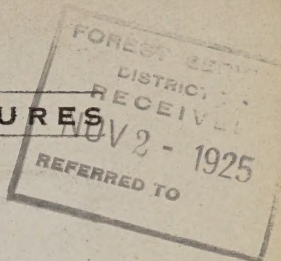


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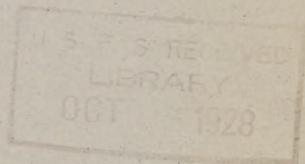
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FOREST RESEARCH IN PICTURES



NO. 68

THRESHING TREE SEEDS



**SOUTHWESTERN FOREST EXPERIMENT STATION
U. S. FOREST SERVICE
FLAGSTAFF, ARIZONA**

Although the professional forester has to assist nature in replanting her forests only where repeated fires have killed off both seed trees and seed stored in the soil, his methods of planting produce far more trees per thousand seeds than do the planting methods of nature. The threshing machine shown in the picture is being used to remove the wings from western yellow pine seeds in order to reduce the bulk of the seeds and to make it easier to plant them in the nursery beds. The cones from which the seeds were beaten were taken from the food caches of squirrels. More commonly they are gathered from the forest floor by Indians, collected from trees felled during logging or pulled from the standing trees.

Nature, in order to get a full "catch" of western yellow pine seedlings, must in an average case sow 200,000 seeds to the acre. One hundred thousand of these may germinate but when the seedlings have reached a height of one foot the vicissitudes of forest citizenship have usually reduced their ranks to a bare thousand. Of the thousand trees it is unlikely that more than 30 will reach maturity so that nature plants more than 6500 seeds for every western yellow pine she rears, not counting those that fall before the removal of the mature trees enables them to develop.

The forester planting 200,000 western yellow pine seeds can germinate 70 per cent or more than 140,000. These he uses to plant 140 acres and as the stands obtained are as thick as nature's his return may run as high as one tree matured for 33 seeds planted.

Photograph by U. S. Forest Service



